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CHOLERA—ITS MANAGEMENT AND MEDICAL TREATMENT.

Read before the Norfolk District* of the Massachusetts Medical Society, Jan. 10th, 1866, by BENJAMIN E. COTTING, M.D., of Roxbury.

I. No one who looks over the chart of the wanderings of cholera, or examines the accounts of its various visitations, can fail to be struck with the irregularities of its movements and the uncertainty of its progress. It goes about unmindful of any law yet detected, often in the wake of migrating masses, but not unfrequently regardless of human barriers, and unobservant of the usual routes of human intercourse and traffic. Vessels sailing from an unaffected port are attacked, a thousand miles apart, in mid-ocean. An island, far out at sea, is seized upon. A ship loaded with disinfectants loses its crew on the voyage. The filthiest place in a crowded city is repeatedly passed by. One side of a populous street is invaded, the other untouched. A large city escapes, while in constant and unrestrained intercourse with another which loses thirty thousand persons. Other places, perfectly isolated, are fastened upon—how, or by what means, defying all discovery. In fact, it is far from proved that this disease (or any other epidemic) travels out of its way to avoid favored localities, or to attack filthy and overcrowded places; but, simply, that when the morbific influence rests upon a country, the latter offer a greater proportion of victims in their crowded, impoverished, intemperate, and half-fed inhabitants. Hence the failures thus far of quarantines and sanitary cordons; and a reason for, if not the reasonableness of, the Pope's decision, last season, not to take unusual precautions, but to trust the "Eternal City" to the care of Providence. An English paper derided him for this, and, tauntingly, hoped that he would be more fortunate than in his previous reliance on the same Power. Rome escaped attack, while An-

* It is customary in this District Society to propose questions for discussion, and to appoint members (in alphabetical order) to open the discussion by short written papers. Hence the origin of this article.

cona was decimated, actually losing three thousand out of thirty thousand inhabitants.

The most probable conclusion seems to be, that, whenever the morbific influence passes to, and settles upon, a locality, it remains there until it has accomplished its fatal purpose; and that, before this influence has reached such a locality, diseased individuals may be brought to, or within its borders, without greatly endangering residents therein. Thus the disease did not spread when carried to New York, last autumn; or from similar importation in 1848, though some months later the city was invaded from an entirely different direction, and suffered severely.

In view of such and similar facts the French Government have recently (October, 1865) proposed international conferences in order to adopt measures, with a view "to stifle the evil in its origin," —reputed to be in the fluvial districts, and the holy cities of the East. "It does not suffice" (says the Report of the French Ministers) "to oppose to it, at its various stages, obstacles which cause serious prejudice to trade and commerce, and which are but too often powerless in protecting public health." It remains to be seen what these measures may be, but one must not feel too sanguine. Mecca is the yearly resort of hundreds of thousands of religious enthusiasts, who rush thither regardless of pestilence, and who may not respect cordons, or fear the sword. The Ganges is a large river, and the multitudes bordering thereon are not remarkable for readily conforming to the projects of outside barbarians. In these days of inter-migration the *world will move;* and, as we well know, not even double picket lines of opposing armies can prevent the crossing and re-crossing of determined persons impelled by curiosity, cupidity, or other powerful motives. Nevertheless the project is a laudable one, and deserves the hearty support of every government, and every individual, whatever may be its results. Yet there is too much reason to fear that, whenever the time arrives for the spread and devastations of the epidemic, it will overleap all barriers, and roam where it listeth.

Whenever, then, in the course of events, the "disease-poison" shall visit this country, we may expect, from its previous history, an irregular progress, and unaccountable variations in severity—that it will remain in any locality it descends upon until its work shall be accomplished, a time not materially influenced by its lightness or severity, or by the situation and conditions of the place attacked—that its most frequent victims will be among those, who, from whatever causes, are the most suitable subjects for any epidemic, though the apparently vigorous and strong may not wholly escape—that, as in former outbreaks of the disease, neighbors of those attacked will often be spared, though in conditions apparently much more unfavorable—and that, when the disease moves onward, it will frequently proceed in unforetold and unexpected directions, and will repeat-

edly disappoint public and private calculations—putting at defiance human control or "management."

II. Quarantines and cordons having hereunto failed to prevent outbreaks of cholera, a multitude of expedients have been resorted to, or suggested, to cut short the disease in individuals, or to render it innocuous. One extreme of these, the inoculation of syphilis, only equals in vileness the inert futility of another, the carrying a few grains of camphor about the person. It is hardly necessary to say that a trustworthy preventive for individuals has not yet been found. Sanitary measures, as they are called, are the most important, and should be thoroughly carried out always—not less in seasons of exemption than on the approach of epidemics. For filth and uncleanness, though not disease, nor its primal cause, any more than guano is a cabbage, are nevertheless good fertilizers when the seed is scattered broadcast, and should not be allowed to accumulate at any time, much less till the enemy is at the door; since it seems reasonable that the more a nuisance is stirred in the presence of a pestilence the more deleterious it may become. Keep, therefore, the city, house, and person, at all times, clean; a sane mind and a clean body are the best safeguards for the State, and the individual.

"I believe," says one of our "oldest and most eminent physicians" —"I believe that the best prophylactics against this disease are strict temperance, wholesome food and clothing, uncrowded residences and lodgings, and avoidance of excesses of all kinds."

"Hygienic precautions are the best safeguard; whoever lives *wisely* will seldom suffer from cholera," says Velpeau, the great professional oracle of France.

To the same effect the old verses, quoted in a recent periodical—

"Tiens tes pattes au chaud,
Tiens libres tes boyaux,
Ne vas pas voir Marguerite,
Du choléra tu seras quitte."

Temperance, wisdom, virtue! when these shall universally prevail many other evils besides cholera will disappear, or become of little account. But if, in our less favored days, and until the present order of things is changed, in spite of all practicable precautions, the disease visits our people—what, then, is to be done? The medical treatment of those attacked is a question raised by our subject. But it is a question more easily asked than answered. The greatest possible varieties of treatment, and the greatest possible absurdities, have had their advocates. One believes the disease to be the same in cause and nature as *sea-sickness;* and another that it is the result of variola mitigated and changed by vaccination—and they prescribe accordingly. In a former epidemic the actual cautery was resorted to; now ice-bags are in vogue (at least at Southampton). The pages of periodicals are filled with uncounted numbers of formulæ, of all degrees of potency and appropriateness—from emetics to ptisans, and from purgatives to plugging the rectum.

On the approach and invasion of an epidemic, disorders of a somewhat similar character, but of milder type, frequently prevail; and no one can wholly escape the operation of the deleterious influence. As to those abdominal disturbances which may occur during the presence of cholera, most teachers urge treatment to arrest or stay their progress—though some advocate purgatives or advise that the diarrhœa should not be checked, but rather promoted, in order to carry the poison out of the system. As examples of the more rational and milder practice—Guérin finds that charcoal (three or four lozenges daily, before meals) is quite sufficient to neutralize premonitory abdominal disturbances; and Velpeau considers three or four drops of laudanum, followed by an opiate enema if necessary, the most trustworthy on the supervention of colic and nausea. Cholerine (as such disorders are sometimes called) is generally easily managed by prudent persons—prudent in diet and general habits. But cholerine is not cholera, or the cause of it. Many succumb to cholera, after recovery from cholerine; and often cholera makes its attack without any warning appreciable to the patient. We believe, however, that the disease, like many others, has a period of incubation in every instance.*

"When the attack assumes a more serious form," says M. Velpeau, "and vomiting sets in, the patient must be considered in great peril, because the remedies introduced into the stomach are no longer absorbed, and become absolutely useless. External measures of treatment must now be resorted to, such as frictions, hot blankets, &c., very insufficient defences against so formidable an enemy. This, however, is the sad truth, and cannot be altered by idle lamentations."†

Even the subcutaneous introduction of sedatives, we may add, has proved inefficacious; the action of the absorbents being altogether lost or suspended.

As the stomach becomes insensible in most cases of severity, it should not be crowded with drugs or other substances. It is often better to withhold entirely both food and drink, except, perhaps, a few drachms of wine. An enema of pure wine and water, say two ounces of each, has been recommended at this stage. It will do less harm than saline preparations, and may possibly be of service. Rest and warmth of a bed are indispensable, but extremes of heat and cold should be avoided—and the same may be said of other external applications, frictions, &c. Hyperpraxis and tumultuous activity, the great jeoparders of the sick in all severe diseases, are especially to be guarded against in this epidemic.

* "The poison which generates cholera" "certainly possesses in an extraordinary degree the properties which all morbid poisons possess in some degree, of lying latent for a length of time, in certain localities, or in the constitutions of individuals, or both," &c.—*Cyclop. Pract. Med.*, vol. iii., p. 253.

† Answer to Le Verrier, the astronomer, who, at a recent meeting of the Academy of Sciences, adjured those who were acquainted with the truth to state it without any reservation whatever.

Cholera, like most other diseases, often ends favorably. Only about one half even of the worst cases prove fatal. Each case must be treated according to its own peculiar requirements, on such general principles as every rational physician should understand. The milder methods, quoted above, seem reasonable in themselves, easy to carry out, and are supported by amplest experience and the highest authority.

According to a limited experience and observation in former epidemics, that course is best which, with the least violence or perturbation, may soothingly tend to sustain the vital powers during the progress of the disease to its spontaneous termination. *There is no other treatment of absolutely reliable efficacy.*

These views may not be popular (a *nosoclast* is the popular idea of a physician, both in and out of the profession), but they are none the less true; and, in matters of so much importance, the truth should be communicated without reservation.

P. S.—Since the above was written we find the following in the London *Medical Times and Gazette* for November, 1865, p. 577; and we wish, for the sake of the sufferers, that believers in the "*necessity* of medication in disease" in all cases, would ponder well its suggestions before they proceed to heedlessly dose their patients, overlooking, or ignorant of, the real nature and tendencies of their complaints.

Thus a *careful* physician speaks for *himself*:—

"What we desire is a statement of the excess of benefit derived from ice over that from careful treatment without drugs (which we pray for, should we have cholera ourselves) and over other systems of medication. When we say careful treatment, we mean the giving of nourishment, and the comforting the patient in those small details which can only be attended to by a kind and skilful medical attendant, who does not conceive himself bound to *try* something for the sake of appearances."

M. Velpeau also said, at the meeting before referred to, that "the failure of the various medications advocated is attributable to a grievous mistake of the public, and even of professional men, who are under the impression that diseases are not susceptible of a spontaneous cure. Many affections yield without treatment, and, it must be acknowledged, sometimes in spite of all treatment. To this fact we must not be wilfully blind. An opposite opinion unfortunately prevails. . . . . After the exhibition of a remedy the symptoms have yielded once, twice, thrice, or oftener; hence it is inferred that the cure has been in consequence of the treatment. The inference is a natural one, but almost invariably incorrect."

CAN TYPHOID FEVER BE BROKEN UP OR SHORTENED IN ITS DURATION BY MEDICAL MEANS?

[Communicated for the Boston Medical and Surgical Journal.]

MESSRS. EDITORS,—Your correspondent W., in No. 17 of the JOURNAL, seems to be considerably shocked by the opinion advanced by me, in my review of Dr. Cotting's Address, which in substance is the following, viz.:—Typhoid fever, in its formative stage, may sometimes be broken up, at least shortened in its duration, and very much modified in its more severe symptoms, by early and prompt treatment, especially by emetico-cathartics. W., in regard to the two first propositions, with several other "observing practitioners," "knows no such thing." I am very well aware that the opinions of very many eminent medical men of the present day prevail in that direction. M. Louis says, that "experience has shown that a well-marked typhoid affection is not capable of being broken up." Dr. Nathan Smith entertained the same opinion. Dr. Bigelow, too, holds the same views, but adds that "it is but justice to state, that numerous and highly respectable authorities are declared in favor of the efficacy of art in shortening and mitigating these (typhoid) diseases." Dr. James Jackson, whom W. will admit to be just as good authority as any of the above-named gentlemen, entertains views highly in favor of a vigorous endeavor to shorten and ameliorate the disease in question by proper remedies. His plan was to give emetics early in the disease. He says: "But I believe that I can bring so much evidence on this side of the question as to justify the trial of active remedies under proper circumstances, nay so much as to *make it our duty to try them,* until further evidence shall show that there is some fallacy as to that which I shall adduce." Dr. Jackson then gives his experience in some hundreds of cases, with or without emetics, which was the remedy most relied upon by him. The conclusion arrived at was decidedly in favor of giving emetics in the onset, as calculated to shorten and ameliorate the disease in question. Dr. Brinton, physician to the Royal Free Hospital, London, firmly believes in and advocates the "cure of typhoid fever" by the breaking-up plan. He says, "emetics in fever are most advantageous; with proper precautions, always harmless; in most instances, extremely beneficial; in some cases *positively cutting short the malady by a speedy cure.*" Thomas King Chambers, Honorary Physician to His Royal Highness the Prince of Wales, and Physician to St. Mary's and Lock Hospitals, says, in speaking of typhoid fever and the use of emetics in the early stages, that a considerable proportion of the cases may be *cut short* in this way, and he refers his pupils to cases under their own observation in the hospital wards which he thus treated, with the effect of at once arresting the morbid process, and establishing the period of convalescence. W. will perceive, if he does not already know, that the medical world are

divided in their opinions on this point, in other parts of creation as well as in Boston, and that heroic practice obtains elsewhere than in Franklin County, and also that the patients do sometimes "survive the treatment" notwithstanding.

Half a century ago, the doctrine that fevers could be broken up was the prevailing opinion of medical men high in authority. Guided by the light of observation and experience, and meddling very little with theories and delusions, they usually came to very correct conclusions. Are we willing to admit that physicians of to-day can accomplish less than our medical fathers of fifty years agone? It would truly seem so, if some of our teachers are correct in their opinions. But I am not alone when I advocate the doctrine of the olden time, and maintain that typhoid fever can be, in its formative stage, sometimes broken up, often rendered more mild in character, and shorter in duration. It is in the earliest and formative stage of fever, before the system has become generally contaminated, and in that period of the disease which in common parlance we style "coming down with the disease," that in my belief, founded on an experience of twenty-four years in a district particularly addicted to fevers, remedies can be used for cutting short the disease in question, and, as Dr. Brinton expresses it, "rendering it endurable." With the authority of medical men of great experience and reputation to sustain me, I know of no better reason to render for my views than facts gained by the light of experience. I have treated from thirty to one hundred cases of typhoid fever nearly every year for the past twenty-four years, and I have every reason to believe that, in many instances, I have seen the disease *broken up*, or if not at once arrested in its course, at least so modified as to render it more mild and manageable, and of shorter duration, by the prompt action of emetico-cathartics in the onset. I do not propose to inquire into the causes of typhoid fever, or upon what part or parts of the human economy the fever-poison first makes its impression. That the blood comes in for its full share of the first evils, I have very few doubts. Afterwards, in various lesions, the tissues of the body become secondarily affected. The fever-poison, whatever it may be (quite likely miasmatic), acts with gentle power at first, but obtains in time a full dominion. It is during the very first appearance of the typhoid symptoms, when the subject is yet going about with the leaven of the poison beginning to work, with pain in the head, languor, and weakness of the limbs, slightly furred tongue, accelerated pulse, &c. &c., and before the fever-poison has obtained a strong foothold in the system, that I have seen emetico-cathartics operate with such decided benefit. Emetico-cathartics, aided by collateral means, make a powerful impression upon the secernent and depurative organs of the body. I believe, in typhoid fever, they thus enable these organs to rid the system of the fever-poison, by eliminating it therefrom in part or in whole, either breaking it up or rendering it in many cases

where success is gained, more mild and manageable. Perhaps my statement that typhoid fever "very often" can thus be broken up or ameliorated was a little too positive; but that it may sometimes be done I have not the shadow of a doubt, and as emetics properly administered can hardly if ever do harm, is it not proper and right to endeavor at least to render the disease more mild and endurable by giving them in its onset?

When typhoid fever runs through a regular course, what becomes of the fever-poison? Is it gradually thrown off from the system, or does it lose its virulency by time and become inert? We know that a certain train of symptoms follow its presence, sometimes of a mild, sometimes of a malignant character. Why is this, if in some cases there is not the presence of a greater degree of the fever-poison? Circumstances go to show that the mildness or malignancy of a fever depends upon the amount of fever-poison present in the system. If, then, in the onset a portion of the miasmatic poison can be thrown off by proper remedies, is it not reasonable to suppose that the disease will be manifested in a milder degree? W. will probably say that the above statements are "very positive, but not very logical." Facts gathered from the light of one's own experience are quite as reliable as dogmatical theories trotted out by a double-horse team of logic. The doctrine that I advocate had able supporters fifty years ago. Its age certainly gives it dignity. It is advocated by some of the most eminent physicians of to-day, both in this country and in Europe. It is, then, not an obsolete or superannuated doctrine. D. RICE.

Leverett, Mass., January, 1866.

FISTULA IN ANO—OPERATION BY LIGATURE, MODIFIED.

BY DR. A. W. THOMPSON, NORTHAMPTON, MASS.

[Communicated for the Boston Medical and Surgical Journal.]

THE surgical device about to be described, by means of which the use of the ligature in the operation for fistula in ano has apparently been rendered more expeditious and effectual than in the way hitherto practised, has answered my expectations so well that, if new, it seems to me not unworthy to be submitted to the profession. I have resorted to it in cases wherein, by reason of complicating circumstances, the ligature has promised better results than division of the tissues with the knife. The desideratum was, to hasten the passage of the ligature through the flesh by tension towards the surface; and a weak spring of India rubber was used for the purpose. A single selected case will be reported, as affording greater clearness and brevity than a general description.

CASE.—The patient, an unmarried lady, 22 years of age. Health excellent until two years ago. Has suffered for two years, and is

still suffering, from menorrhagia. Menstrual interval at present is three weeks, and the amount of flux inordinate and exhausting. Profuse leucorrhœa occupies the *interim* between hæmorrhages. In addition has, she says, "a running sore near the outlet from the bowels, left behind from a large gathering of matter which broke in that place."

Examination reveals considerable prolapse of the womb, with enlargement, tenderness, and slight ulceration of the os; also, *blind external* fistula in ano, neither the probe nor water from a small syringe finding their way into the rectum from the sinus externally. Debility, pallor, &c., as might be expected, extreme.

General treatment, mainly tonic, was pursued for a time, with perceptible good effect. The ulcerated os tincæ and the leucorrhœa were improved by applications of solut. nit. argent. and astringent vaginal injections. An attempt was made, *pari passu*, to obliterate the fistulous sinus by means of injections into its cavity of tincture of iodine and of "yellow wash" at different times. But this treatment, although sedulously applied, was of no avail. The capacity of the sinus was half a fluid ounce. Suddenly, it appeared from the free admission of a much larger quantity of fluid, non-resistance to the syringe, and the escape through the anus of the injection as fast as it was thrown into the fistula, as well as from the easy passage of the probe for the first time into the rectum, that between two days the internal septum had yielded, and that the fistula was now complete. The patient was by this time tolerating a Meigs's ring pessary, and suffering less, although still considerably, from uterine disease.

Operation.—For the relief of this fistula the ligature was preferred to the knife, in view of the uterine complication. Its track inclined towards the vagina, so that the finger in that passage seemed to be separated from the probe in the fistula by scarcely more than the mucous membrane. A ligature of four lengths of saddlers' silk having been introduced and left as tight as could be borne, on the first evidence of its advance towards the surface—slackness in the portion outside—a C spring of thin rubber, notched at its extremities that it might be held in place, was inserted under the loop of the cord, its convexity directed towards the skin and its notched ends receiving the cord strained into them by the action of the spring. As much strain was thus applied as the patient could endure. From day to day new springs were added, or longer ones substituted, as more and more of the ligature appeared outside, until in a few hours short of eleven days it dropped away and the cure was complete.

The spring is easily cleansed, absorbing no fluid, and admits of the application of poultices, which in this case were required.

Soft dejections were induced daily, mainly by the use of uncooked bran drunk somewhat freely in water or milk. The sphincter ani retained its power—even for the retention of gas—throughout; and

at the present writing—ten months since the operation—the patient declares herself to be, and to have been, free from troubles referable to the rectum. She is also better of her uterine disease; has married meantime; so there is hope that her condition may yet become *interesting*, even if that portion of her history sketched above has failed in the hands of the writer to merit that epithet.

CLINICS OF M. CIVIALE AT THE HOSPITAL NECKER, PARIS—ELECTRICITY IN THE TREATMENT OF DISEASE.

[FROM the interesting letters from Paris, by Prof. Charles A. Pope, published in the *St. Louis Medical and Surgical Journal*, we select the following.—EDS.]

It has been my pleasure, for some months past, to attend weekly, at the Hospital Necker, the cliniques of M. Civiale. During this time I have seen him perform a large number of his usual operations, such as urethrotomy, lithotripsy and lithotomy. In the crushing of calculi he is still unrivalled. The extreme care with which he examines his cases, and the wonderful ease, delicacy and precision which characterize his manipulations, have not diminished with his advancing years. Compliments in this respect, however, he generally declines, preferring that his great skill should be shared by all surgeons. His wish is to see lithotripsy practised by the whole profession, and not confined to a few. Forty years' observation and experience in an extensive and special practice could not fail to render him thoroughly proficient in all that concerns the diseases of the urinary organs. It must be recollected that in the diagnosis of these we are deprived of the use of sight, and are guided by the touch alone. Nor is the touch direct, for it is exercised through the medium of a long, metallic instrument. One's admiration, therefore, is enhanced to see with what accuracy he appreciates the various conditions of the urethra and bladder, the presence or absence of calculi, whether free or encysted, their size, shape, hardness and number, as well as the various tumors and polypi, their narrow or broad base, and, in short, all that concerns the pathology of these important organs. Yet, notwithstanding his ability, Civiale is always modest, and deprecates the rashness and presumption of those who claim to be absolute in their diagnosis and treatment of these difficult and often obscure complaints. The method and instruments are the same he has employed for the last thirty years. If there be one quality which characterizes him more than another, it is gentleness. This is his great watchword. He never inflicts useless pain, never fatigues his patients by prolonged operations, and always properly prepares them for the use of his instruments, which seem to glide of their own accord, and are of small size to admit of freer play. A favorite remark with him is, always to give the urethra

time to swallow the instruments, the wisdom of which is apparent to all who are familiar with such operations. His lithotripsical operations are almost perfect.

In nodulated strictures he still uses his own urethrotome, which cuts, as you know, from behind forwards, or from the bladder to the penis. Sometimes he incises the urethra for seven inches in extent; but generally he limits the incision to the mere nodosity. He prefers to act on the posterior wall of the urethra, whilst Maissonneuve almost always cuts anteriorly. Both are careful to introduce immediately an elastic catheter, which is retained for thirty-six or forty-eight hours.

In lithotripsy I have said that Civiale is unrivalled; but in lithotomy he is by no means expert. Blunt instruments along natural routes he thoroughly understands; but cutting instruments are out of place in his hands. My recollection of him would have ever been one of unalloyed pleasure and admiration, but for an unfortunate case of lithotomy which I not long since witnessed, in which he but too plainly evinced his want of surgical skill.

The patient was a man about 55 years of age—the stone being of rather large size. No chloroform was used, and, during the protracted operation, his sufferings were very great. A straight incision was made in the median line in front of the anus. The staff having been reached, a double *lithotome cache* was pushed into the bladder, and the blades having been made to project, the instrument was withdrawn. With the common lithotomy forceps an attempt was made to extract the stone, but failing, resort was had to a complex apparatus for crushing, or rather disrupting, the foreign body. This consisted of a large forceps, whose strong handles were forcibly approximated by a vice, through which and the joint of the forceps a perforating instrument like a gimlet and worked by a screw was introduced against the included stone, with the view of boring into it, and thus causing its disruption. After much time, labor and suffering, the operator succeeded in breaking off and removing a portion of calculus, more than an hour having been consumed in ineffectual attempts at extraction, during which both the surgeon and patient were thoroughly exhausted; the latter was removed to his bed, with the promise that the remainder of the stone would be taken from him in a few days. He died, however, on the second day, and the stone was removed after death. It constituted about two thirds of the whole mass. When entire it was ovoidal in shape, and would have measured about $2\frac{3}{4}$ inches in length by $2\frac{1}{4}$ inches in thickness. I have myself successfully removed a larger stone from a much smaller patient by the single lateral incision.

A worse operation I scarcely ever witnessed. Its plan was defective, as the direction of the outer and inner incisions were at right angles to each other, and its execution was unskilful. The surgeon did not give the ordinary forceps a fair trial; and if, as he

said, the stone was in the bas-fond of the bladder, which closely embraced it, why did he not introduce his finger into the rectum so as to facilitate the seizure? He seemed more intent in applying a sort of perineal lithotripsy through the wound; but, whenever this becomes necessary, it were preferable to resort at once to hypogastric lithotomy.

For his own reputation, and the good of his patients, it is to be hoped that the able lithotriptor will not often attempt the knife, but in cases requiring its use that he will hand them over to some more skilful confrère. Civiale seems to be about 70 years old. He is followed by a small class of from ten to fifteen students, the majority of whom are foreigners. He is said to be very wealthy, and pays, I have been told, six thousand francs a year for his service at the Hospital Necker.

At this same hospital I have occasionally seen the application of the *endoscope* in the hands of its inventor, M. Désormeaux. . . . . He has several times observed encysted calculi and different fungous growths contained in the living bladder.

More than twenty years ago the idea of looking into the bladder was entertained by Segalas and others, but fell into neglect until a few years ago, when M. Désormeaux revived and accomplished it. This gentleman certainly deserves much credit for his persevering efforts in this direction; and it is to be hoped that, through the instrumentality of his urethroscope or endoscope—for he applies it to the bladder and rectum also—valuable additions to our means of diagnosis and treatment may yet be effected. His pleasant manner and polite attention to strangers are quite remarkable, and enlist all such visitors in his favor.

Among the subjects which have greatly interested me during my sojourn in Paris is one which, although largely medical, has yet an important surgical bearing. I allude to the application of electricity in the treatment of disease.

M. Duchesne (de Boulogne), so well known by his writings on this subject, is always pleased to receive visitors at his consultations, where his numerous patients afford a fine field for study and observation. His collection of casts, photographs and specimens, microscopical and pathological, is very extensive and unique. No other, perhaps, has so well investigated muscular action. From the study of the muscles he was naturally led to that of the nerves which influence them. The various changes which take place in both the brain and spinal marrow, corresponding to the different kinds of palsy, are beautifully shown under the microscope, the views of which have been most successfully photographed. It was, I believe, M. Duchesne who first discovered that the muscles, which failed to respond to the influence of the will, were entirely susceptible to the influence of the electric irritation, and *vice versa*. This view, at least in the first proposition, has been confirmed by our own surgeons in

gun-shot injuries of nerves, as also by the experiments on animals which I have had the pleasure of witnessing at the *Collége de France*, by M. Claude Bernard, on the action of the Woorara poison.

In paralysis, the result of cerebral lesions, the muscular tissue, although atrophied from the want of use, undergoes but little other alteration, whilst in that dependent on changes in the spinal marrow, the fatty degeneration of muscles sooner or later ensues, and sometimes with great rapidity. The muscles which have undergone this fatty transformation are not susceptible to the electric influence. The larger number of cases of club-foot and club-hand are dependent on this latter condition, the transformation affecting one or more of the muscles of the limbs, so that, in these instances, tenotomy seldom does much good. If the whole tissue of a muscle have become transformed into fat, nothing can restore it. The loss, in this way, of the single *tibialis anticus*, M. Duchesne considers as more serious than that of all the other muscles controlling the motions of the foot. When thus singly affected, there is a resulting *pes equinus*, with eversion of the foot by the peronei muscles, and this deformity increasing with the growth of the patient, he at length walks on the inner ankle. Were, however, the effect general, i. e., embracing all the muscles of the leg, an apparatus can be worn, which, giving support to the joint, also keeps the foot in proper position, and thus diminishes both the lameness and the deformity.

A case of contracted little fingers was recently presented at the clinique of Nelaton, which M. Duchesne well showed to depend on the tendon of the flexor profundus. On the opposite arm of the patient the electric current, when applied to the superficial flexor, caused the fingers to bend only at the metacarpo-phalangeal articulation: whilst its application to the inner side of the arm, over the deep flexor, caused the additional bending of all the joints of the fingers themselves. The contrast in the flexion was very marked. M. Nelaton divided the tendon of the profundus in the palm of the hand, at its cubital margin.

On another occasion, at the same clinique, in attempting to show, on a freshly amputated leg, the accuracy with which any single muscle might be made to contract under the electric stimulus, M. Duchesne was not a little disconcerted at his incomplete success, which, at the moment, he could not explain. The cause of his failure was discovered afterwards to have been a pathological agglutination of the muscles, which prevented their separate action.

In a case of "painful flat foot," Nelaton, contrary to the opinion of M. Duchesne, divided the tendon of the long peroneus. The pain ceased for a time, that is, as long as the patient was quiet in bed. On using the limb, however, or on standing for some time, the pain returned, the patient stating that her condition was not at all improved. Having waited for the reparation of the divided

tendon, M. Duchesne applied his battery, the woman avowing her improvement after each application. He states confidently that in a short time she will be completely relieved.

In these cases it is the inefficiency of the long peroneus which causes the flat foot, being a sort of valgus; and the pain is owing to the unaccustomed pressure of the tarsal bones at the upper and outer part of the foot, where it is invariably found, at the depression of the cuboid bone and the astragalus. The arch of the foot also being destroyed, there results a painful compression of the plantar nerves.

There is, likewise, a pastry cook who had suffered in this way for many years. Although twenty years old, his pain had been entirely relieved by the electric current, and he is able to stand all day. Under its repeated use, also, there is an evident commencement of an arch to his foot.

There is a variety of paralysis, a marked specimen of which was exhibited in a boy, that M. Duchesne calls "*paralysie hypertrophique.*" The muscles of the legs, though weak, are over-developed in size. The upper and lower limbs of the paraplegic patient seemed to belong to different individuals, so great was their disparity. Several photographic pictures of other patients exhibited the same variety of this unusual paralysis. In its cure, the hypertrophied muscles become reduced to their normal size.

A woman consulted M. Duchesne, complaining of intense though transitory pains, shooting down the right thigh, and coming on at intervals for two or three days, and then disappearing for several months, to recur again in the same way. The arm of the same side was also somewhat affected. He remarked that such cases, in their incipiency, were very commonly mistaken for and treated as rheumatism or neuralgia, when, in reality, they were the precursory symptoms of a most grave affection. The case was one of what is called "*ataxie locomotrice progressive.*" The patient already presents other confirmatory symptoms in the amblyopia, dilatation of the pupil, and changes in the optic papilla, with inability to walk steadily with the eyes closed, all showing the cerebral trouble. The nitrate of silver has recently been much vaunted in the treatment of this affection; but, as there was a slight syphilitic taint, M. Duchesne entertained the hope of relieving his patient by means of the iodide of potassium and electricity, for, although the tactile sensibility of the limb was impaired, its electric sensibility and contractility were not.

M. Duchesne is now publishing a new work on his favorite subject. It is a field which, in a sense, he has made his own; and the patience and enlightened zeal with which he has cultivated it are deserving of all praise. It is to be hoped that his researches will lead to still further discoveries, and confer yet more important benefits on the profession and humanity.

THE BOSTON MEDICAL AND SURGICAL JOURNAL.

BOSTON: THURSDAY, JANUARY 18, 1866.

THE MODERN PLAGUE OF SERPENTS.—Everybody has seen or heard of the new chemical toy known by the name of "serpent's eggs." The passer-by sees them announced for sale in the windows of nearly every apothecary's shop in the city, or he is startled at every street-corner by peripatetic pictures of huge ophidian monsters with an unpleasantly near foreground of distended and fanged jaws, and with coils on coils running back into the dim perspective. This, the mature brood, is hatched from the "eggs" amid flames and gases, and is called "Pharaoh's serpents." Introduced from Paris, and now manufactured here also in large quantity, they are the fashionable novelty of the season. They are served up on china as a brilliant after-dinner course, are burned in place of the fragrant pastilles, which they resemble externally, in crowded drawing-rooms, and are touched off as harmless domestic fireworks in the nursery. It is not surprising that they should have become so popular, for it certainly does appear wonderful that so much apparent substance should lie shut up in so small a compass, and at the touch of fire should come writhing forth in serpentine coils. Enclosed in these little metallic eggshells, however, are embryos of a far more dangerous character than any described in works on Herpetology, and it needs but the magical generative power of heat to hatch from their comparatively harmless contents some of the most deleterious gases known in chemistry. It is the old fable of the peasant and the viper, and it is time that the public were informed of the poisonous nature of these serpents they are introducing into the family circle.

But, it may be asked, if they are so dangerous, why do we not hear of injurious effects produced by their use? Within a week a communication has appeared in reply to a case of such poisoning, reported by a physician in a public newspaper, from a manufacturer, stating that they are harmless, and may even be swallowed with impunity. A glance at their chemical composition, however, will convince any one of their real character. They are composed of sulpho-cyanide of mercury, a compound of sulphur, cyanogen and mercury. When heated to a high temperature combustion takes place, and in the decomposition which ensues, nitrogen, carbonic acid, sulphurous acid, cyanogen and bisulphide of carbon are given off in the form of gases, a large portion of the mercury is sublimed as vapor, and there remains a peculiar organic substance, consisting of nitrogen and carbon, and known in chemical works by the name of mellone. This it is which is cast forth from the miniature volcano in the form of a serpent.

Now one need not be a chemist to know that cyanogen, bisulphide of carbon and mercury are dangerous, poisonous substances, and that they cannot be mixed with the air of a room without injurious consequences to the persons breathing it. The explanation of the fact that serious results do not more frequently follow their use is that they are, fortunately, expensive, and are therefore generally burned singly. It is none

the less true, however, that inspired even in minute quantity such substances must be prejudicial to health, and that when set free by combustion in larger amount, in a small room, or in the presence of children, they may produce even a dangerous effect. We have several times experienced the suffocative character of their vapors, even in a large apartment. If people wish to play with such dangerous toys, they should at least observe the precautions practised under similar circumstances in chemical laboratories, of thoroughly ventilating the room. In view of these properties the Prussian government has forbidden private sale of them. We hope, therefore, that the public press will assist us in enlightening the community as to the character of "Pharaoh's serpents."

Our Editorial of last Week.—We learn that the impression on our minds while writing the editorial of last week, that the Female Medical School and the Female Hospital were directly associated with each other, is incorrect. There is not, we are informed, any organic connection between these institutions. The spirit which gave rise to and supports them both we believe, however, to be essentially the same. They both aim at giving to women the education and privileges of practitioners in medicine, and in doing so claim to hold a position in advance of the main body of the medical profession. As yet no graduate of the Female Medical School, nor any female physician, has been recognized, however fully qualified, as a regular practitioner by the Massachusetts Medical Society. Graduates of the School are attached to the Hospital as officers, and with them, of course, the gentlemen connected with the latter are ready to consult. This is the false position of which we complain, and which in our opinion ought to be changed. They have signed the Constitution and By-lays of the Society, agreeing to abide by their provisions. These provisions, to our minds, are clearly at variance with the ground they occupy. We have no quarrel with the institutions to which we have referred—the latter, we have no reason to doubt, is an active instrument of benevolence at the present time. But we feel that it should not be left in the ambiguous position in which it now stands, giving full license to any number of the medical profession here to quote the example of its consulting officers as an excuse for consulting with any irregular practitioner they may choose. It was for the purpose of bringing this unsettled question fully home to the minds of the medical profession that we have taken up this unwelcome subject: and nothing would give us individually greater pleasure than to be authorized by the State Medical Society to meet on terms of perfect professional equality such ladies as may see fit to qualify themselves properly for the duties and responsibilities of our arduous profession.

Foreign Intelligence.—The trichina disease is spreading in Prussia. The *Halberstadt Gazette* states that at Hadersleben, in the workman's barracks, out of 27 patients, 24 died. The Eichsfeld is a very poor district, part of which belongs to Hanover and part to Prussia, where most of the poor cottagers keep pigs. A butcher at Berlin sells spe-

cimens of live trichinæ at sixpence each, while the price of pork has fallen to about half that sum per pound.

M. Georges Ville thus classifies the varieties of fermentation :—1. Fermentation by the effect of contact, as in the decomposition of water by fibrine. 2. Fermentation by communication of motion, as in the reduction of oxide of silver by oxygenated water, the action of pectase upon pectine, and of diastase upon starch. 3. Fermentation by organic activity, as in the transformation of sugar into alcohol, carbonic acid, &c., under the influence of yeast.

At a recent meeting of the French Academy, M. Pouchet gave an interesting paper describing his several experiments upon the congelation of animals. He finds that, contrary to the usual supposition, no animal will recover if frozen beyond a certain degree. These are the more important generalizations he has framed :—1. The first effect of cold is to contract the capillaries. 2. The second is to alter the blood-corpuscles—those of mammals becoming crenated at the borders, and those of the lower animals setting free their nuclei, or exhibiting alterations of it without liberation. 3. The greater the extent of surface congealed the greater the danger, because of the larger quantity of decomposed blood-corpuscles. 4. The more rapidly heat is applied to a frozen part, the greater the danger to the subject, because the greater the rapidity with which the blood becomes charged with altered corpuscles. 5. In all cases of fatal congelation death is produced by stupefaction of the nervous system.

Dr. Halbertsma, the distinguished Professor of Anatomy and Physiology at the University of Leyden, and the author of many valuable contributions to human and comparative anatomy and to human craniology, recently died at Coblentz.

We have to announce also the death of Professor Forchhammer, the eminent geologist and mineralogist, of Copenhagen, and the author of several works on chemistry.

Prof. Fergusson has just been created a baronet. He has held the chair of surgery in King's College since 1840.

C. Schroeder Van der Kolk, son of the great anatomist, has just published a work entitled "Soul and Body," in which he endeavors to prove that what is called soul is simply the manifestation of brain, just as digestion is the function of stomach. He says memory, imagination, reason, and even volition, are but the result of physical actions, or electro-molecular, excited by the operation of perception—the contact with the outer world.

A very important discovery relative to the mode of propagation of epidemic poisons, has been made by Dr. Richardson. He has recently conducted a number of experiments which demonstrate that the organic principles of miasmatic poisons may be chemically separated from the blood of the diseased animal; and further, that this organic principle, after being united to an acid, and then precipitated as a base, is capable, when introduced into the secretions of a healthy animal, of producing the original disease. Dr. Richardson has isolated the organic principle of the poison of pyæmia, and, having converted

it into a salt, and then re-isolated it, has found it capable of producing pyæmia in healthy animals.

Chittenden County (Vt.) Medical Society.—The regular quarterly meeting of this Society was held at Essex Junction Jan. 2, 1866, the President, Dr. Benjamin Fairchild, in the chair.

Upon invitation of the President, Dr. Butler read a paper *On the Reciprocal Relations of Physicians and Patients and of Physicians between themselves*, which, on motion of Dr. Sprague, was directed to be presented to each of the county papers, with a request for its publication in their columns.

Dr. Cole detailed a case of *ascites*, in which he had performed the operation of paracentesis seven times and drawn away 280¼ pounds of water.

Dr. Thayer related a case of a patient whose urethra had been severed by a fall astride a fence, in which he had perforated the bladder thirty times in six months—generally through the rectum, introducing the catheter which he wore some time—once through the perinæum, introducing a canula, through which he urinated. In the same case, an operation for establishing a urethra failed, but no bad symptoms followed either of the operations.

Cases were also related by Drs. Fairchild and Miles.

The subject of the fevers of the past season gave rise to an interesting discussion, in which Drs. Thayer, Cole, Fairchild and Miles participated, giving the results of their observation in pathology and treatment.

Dr. Thayer introduced the following resolution, which was unanimously adopted:—

Resolved, That the members of this Society direct their attention to the sanitary condition of their respective districts, and report at the next meeting the results of their examinations, and make such suggestions as they consider necessary for the public health.

In the absence of the Executive Committee, the President invited Dr. Thayer to present the subject of *cholera* before the next meeting of the Society, and Drs. J. W. Miles and A. M. Plant to present such subjects as they may select. The next meeting occurs on the first Tuesday of April.

The meetings of this Society are exceedingly interesting and profitable, affording its members an invaluable medium of intercommunication and friendly intercourse. Those who attend such gatherings most constantly are best posted in professional knowledge.

Ventilation of Hospitals.—Dr. Gallard, of La Pitié, who has lately paid much attention to the ventilation of hospitals, has arrived at the conclusion that *natural* is far superior to *artificial* ventilation. At Hopital Beaujon, he says, has been in operation since 1856 Van Hecke's system of ventilation in the female surgical pavilion of that hospital; and yet statistics show that the mortality has, if anything, increased. In 1851, there was one death to 17·16 patients treated; in 1852, one to 16·26; in 1853, one to 14·48; in 1854, one to 13·81;

in 1855, one to 16·23; in 1856, one to 14.25; in 1857, one to 14·93; in 1858, one to 12·85; in 1859, one to 17·14; in 1860, one to 12; in 1861, one to 11·60; in 1862, one to 12·30. At Hopital Necker, where the same apparatus is in operation, the mortality has remained precisely as it previously was—viz., one in eight or nine patients. Then, again, we find still more striking results if we compare the mortality of La Pitié, where there is no artificial ventilation, with that of Lariboisière, where the most expensive system prevails. Lariboisière nominally contains 606 beds, but its average number is 634. La Pitié contains 620. Lariboisière is placed on a height, and stands in an open space. La Pitié is placed low; has muddy waters, tanneries, &c., around it; its superficial area is 21·7 *mètres*. Lariboisière has 51·8 *mètres*; its beds have each 52 to 53 cubic *mètres*, whilst those of La Pitié have from 25 to 49 only. These and other circumstances place La Pitié in a hygienic position greatly inferior to that of Lariboisière. And we should naturally be led to conclude that the mortality of La Pitié was greatest; but such was not the case. We find from statistical comparison of the mortality at the two hospitals since 1853, when Lariboisière was opened, that the mortality in both was much the same. During eleven years Lariboisière has received 100,718 patients, of whom 12,616, or one in 7·9, died; whilst La Pitié received 103,707, of whom 13,189, or one in 7·8, died. Facts like these, M. Gallard contends, show that artificial systems of ventilation of hospitals are, to say the least of them, useless. Then, again, it appears that during these years, in which statistics were taken, the average duration of diseases in Lariboisière is about two days longer than in La Pitié. It is needless to add, that the expense attending artificial ventilation is great. M. Gallard has often noticed an inconveniently high temperature in wards artificially ventilated. In Lariboisière, where the ventilator of Farcot is employed, the temperature is generally about 17° to 18° cent., and sometimes even above 20°, when 15° or 16° should have been the maximum. The original expenditure on the ventilating apparatus at Lariboisière was upwards of £16,000; and every year the expense of heating the hospital is more than £3,000, whilst that of La Pitié costs only £1,000.—*Medical News and Library*, from *British Medical Journal*, Sept. 23, 1865.

Ventilation of Sewers.—M. Robinet, a French chemist, has devised a means of freeing the sewers from the effluvia which escape in the attempt to ventilate them. He proposes that the furnaces of factories shall derive their supply of air from the sewers. The gases will be destroyed by combustion, fresh air from the atmosphere supplying their place. He calculates that if the combustion of only 70,000 tons of coal can thus be economized annually in Paris, or only a tenth part of what is burned there, the sewers will be supplied with about 140,000,000 cubic feet of fresh air—that is, more than seven times their contents—daily. He would apply the same principle to ventilation of cesspools, &c. It has been partially in use already, on the small scale.—*Ibid*, from *Scientific Review*.

Instantaneous Cure of Coryza.—An Army Surgeon, M. Luc, seized with very bad coryza, attended by fever, severe cephalalgia and

excessive secretion, determined upon trying the effect of the inhalation of iodine vapor. The coryza first appeared at 9, A.M., and the inhalations were commenced at 3, P.M., being repeated every three minutes during an hour, each lasting about a minute. The headache was first relieved, the sneezing then occurring seldomer, the amount of secretion diminishing, and by 6, P.M., all traces of the coryza had disappeared, except a little burning sensation in the throat. Several of the officers have since tried the means, with the same results. The inhalation is effected by placing a bottle of the tincture under the nose, the hand supplying warmth enough to vaporize the iodine.—*Am. Jour. of Med. Sciences*, from *Med. Times and Gazette.*

Massachusetts General Hospital.—At a meeting of the Trustees of the Massachusetts General Hospital, the following gentlemen were elected house officers for the ensuing year :—

On Surgical Side—Henry P. Quincy, Frederic W. Sturgis, Thomas Dwight, Jr., Richard H. Derby.

On Medical Side—Wm. L. Richardson, Henry Tuck.

Their term of service will begin on the 1st of May next.

VITAL STATISTICS OF BOSTON.

For the Week ending Saturday, January 13th, 1866.

DEATHS.

	Males.	*Females.*	*Total.*
Deaths during the week - - - - - - -	40	43	83
Ave. mortality of corresponding weeks for ten years, 1853—1863	40.6	36.3	76.9
Average corrected to increased population - - - - -	00	00	83.78
Death of persons above 90 - - - - - - - - -		0	0

Communications Received.—A Question that should be Settled.—On the Practical Uses of the Laryngoscope and the Rhinoscope.

Books and Pamphlets Received.—Lectures on the Diseases of Infancy and Childhood. By Charles West, M.D., Fellow of the Royal College of Physicians, Physician to the Hospital for Sick Children. Fourth American, from the Fifth Revised and Enlarged English Edition. Philadelphia: Henry C. Lea.—Annual Report of the Trustees of the Wisconsin State Hospital for the Insane.—Report of a Special Committee of the Board of Health of the City of Detroit, suggesting Measures for the Prevention of Asiatic Cholera, &c.—Report of the Surgeon-General of Massachusetts to His Excellency the Commander-in-Chief.—Report of the Board of Inspectors and other Officers of the Massachusetts State Prison.

Married,—At Savannah, Ga., 4th inst., Dr. A. C. Fowler, U.S.N., to Miss Elizabeth H. B. Hatch, of Medford, Mass.

Died,—In Troy, N. Y., Thomas W. Blatchford, M.D., aged 71—one of the oldest and most respected citizens of that place, and widely known as a leading member of the medical profession in the State of New York and an able writer.

Deaths in Boston for the week ending Saturday noon, January 13th, 83. Males, 40—Females 43. Abscess, 1—accident, 2—apoplexy, 4—disease of the brain, 4—inflammation of the brain, 1—bronchitis, 2—burns, 2—cancer, 1—consumption, 14—convulsions, 2—croup, 2—diarrhœa, 1—diphtheria, 2—dropsy, 3—dropsy of the brain, 3—scarlet fever, 2—typhoid fever, 3—disease of the heart, 3—infantile disease, 2—intemperance, 1—disease of the kidneys, 1—congestion of the lungs, 1—inflammation of the lungs, 5—marasmus, 2—old age, 1—paralysis, 1—premature birth, 4—disease of the prostate, 1—puerperal disease, 1—smallpox, 3—disease of the spine, 1—stricture of the œsophagus, 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 31—between 5 and 20 years, 11—between 20 and 40 years, 17—between 40 and 60 years, 11—above 60 years, 13. Born in the United States, 63—Ireland, 17—other places, 3.